

## WHATEVER HAPPENED TO...?

### THE CAR THAT RUNS ON WATER

GUERNSEY — It's here! The car that runs on water at the fantastic rate of 100 miles per gallon, and could make petrol out of date.

Scientists in England say it is impossible, and, for more than a month, I, too, have been highly sceptical of the secret trials on the island of Guernsey.

But I drove the water car, a Leyland Mini, and saw for myself that it does work. I drove it on the roads of Guernsey in normal traffic at up to 45 mph.

The engine was lively and powerful. It accelerated normally and travelled about five miles with nothing but water in the tank—until a pump burnt out.

Mini No. 19454—a Guernsey registration—runs on hydrogen gas, made from water by electrolysis on the move.

Two days of tests and driving with water as the base fuel have been watched by Royal Automobile Club (RAC) man David Hooper, who lives and works on Guernsey.

The hydrogen-from-water device, estimated to cost about NZ\$200 in mass production, is the invention of 74-year-old New Zealander, Mr Archie Blue.

He was brought to Guernsey about three months ago by a group of tax exiles—three retired, wealthy, UK businessmen.

Together they and Archie Blue have been developing his invention to the point where they can prove that a car will run on hydrogen produced from water as it travels along.

Hydrolysis is simply passing an electric current from the battery through water to break it into its basic gases of hydrogen and oxygen.

It is well known that hydrogen can replace petrol to power a car, but it is regarded as an expensive gas to produce and costly to carry in a heavy pressurised cylinder.

Archie Blue says: "This is conventional rubbish."

In simple terms, he has added a pump which forces a mixture of hydrogen, oxygen and air into the carburettor in place of the normal petrol-air mixture.

The scientists say it is feasible to produce hydrogen by electrolysis to power a car, but they doubt whether it can be made in sufficient quantity from water fast enough to meet an engine's power needs as it goes along.

Archie says: "I've done it."

During my drive on hydrogen gas it was impossible for any petrol to have entered the engine.

RAC man Dave Hooper saw the petrol pipe disconnected from the carburettor and sealed off at the end. There was no secret supply of petrol. Only water.

Inventor Archie Blue poured about a pint of water into his hydrolysis unit—a high-pressure steel 'bottle'—and screwed down the lid. The secret lies in knowing how much water to have in the hydrogen-producing 26-cm-tall steel bottle.

Mr Blue, a wiry, rugged man who claims to have been responsible for many inventions including the first valveless radio, says: "You need only a little water and a lot of gas. I know it is possible to produce hydrogen on the move, and to make enough gas to power a car so that the driver cannot tell the difference between this and petrol.

"Now the idea needs developing by people with better resources than we have.

"I believe it should be possible to drive for 100 miles on hydrogen produced from a gallon of water," he said.

Mr Alec Taylor, 71,

retired builder and civil engineer, who is one of the three financiers, says: "I am convinced 101 per cent that this invention, in the right hands, can revolutionise the world's motor trade.

"I put money into it in the first place against my better judgement, but now I will back it to the limit because it does work.

"If necessary, I will form a consortium to raise a million pounds for development—but then it will stay in Guernsey."

At British Leyland Cars' headquarters in Birmingham, a senior spokesman said: "This sounds interesting. An engineer from Leyland Cars will be happy to talk to Mr Blue."

(Source: Written by Michael Kemp, *The Daily Telegraph* [UK], 1 September 1977)

WEEKEND STAR

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TODAY'S RACE

WATER 'BABY'

HAR BLOCK

Front page of the *Weekend Star* [NZ], 29 April 1978.

## WHATEVER HAPPENED TO...?

### THE RADICAL NEW THERMAL ENGINE

A Swedish scientist has revived a centuries-old controversy with contentions that he has discovered the theoretical basis for a perpetual-motion machine.

Most foreign scientists dismiss the notion of such a device as contravening fundamental laws of thermodynamics, but the Swedish claim has created much excitement among scientific circles in Stockholm.

The man making the claim is Professor Baltzar von Platen, 77, regarded in Sweden as the inventor of the modern refrigerator and the first person to produce synthetic diamonds.

His theories involve the production of energy through a complex process involving air, ammonia and salt in an apparatus rotating at very high speed, but scientific sources said the system was difficult to explain in layman's language.

Professor von Platen has said in newspaper interviews that unless his ideas are invalidated by some natural law, the energy could be harnessed to run cars, warm houses or power aircraft.

He is expected to file a patent application soon, and the Secretary of the Royal

Academy of Science, Professor Sam Nilsson, said he had gone through the 50-page document and could find no basic flaw.

He said the theory put Professor von Platen in a class with Thomas Edison, who perfected the electric light bulb, and Marconi, who developed the modern radio.

But other scientists were more sceptical. One physicist said the theory ran counter to all known laws.

"There is only a limited amount of energy around. If you use energy up and don't replace it, you run out," he said.

The physicist was asked if it was possible that Professor von Platen had hit upon an entirely new law of thermodynamics that could explain his ideas.

"Every day there are millions of processes going on and they all obey the laws as we know them," he said.

At the heart of Professor von Platen's idea is a spontaneous heating process which is continuous.

It begins with the air-water-ammonia process in the centrifuge. As it spins faster and faster, the pressure at the extremities increases up to 1,000 times that of the atmosphere ( $14.7 \times 1000 = 14,700$  p.s.i.), generating heat which could be used to drive a turbine.

Professor Sven Brohult, Director of the National Academy of Engineering Sciences, said that even if the theory were only partly correct, the practical applications could be enormous.

**[Vanguard Sciences Note:** We understand that heat pumps are routinely claimed to have excess energy outputs in the range of two to five times what it takes to operate the heat pump. An engineer named Mike Eskely, whom we met here in Dallas, also claimed to have a turbine which generates over unity by high-velocity rotation of gases. Although we never saw a working model, he is convinced he is onto something and has over 50 patents to his name.

Mr Eskely told us that in Texas there are laws that protect the power companies from having to purchase energy that is not produced using 'acceptable' co-generation sources. One of the methods that is forbidden is the heat pump. If you try to sell your excess power (generated through a heat pump co-generator) back to the power company, they are not required to buy it. As we understand it, they are required to purchase excess power generated from solar, wind, fossil fuel, geothermal or hydro co-generated systems.]

*(Source: This document was originally published in The Canberra Times on 7 May 1975,*

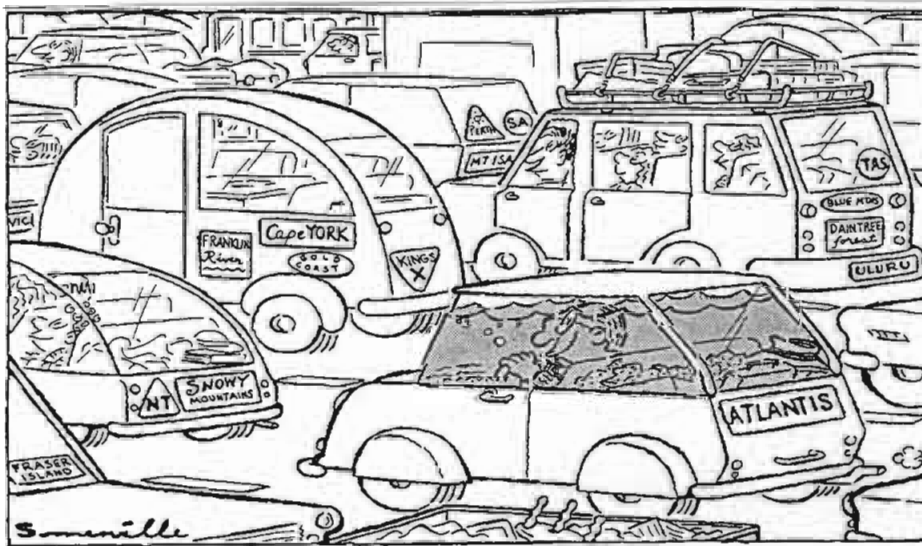
*but we found it listed as PLATEN.ASC at KeelyNet BBS, +1 (214) 324 3501, sponsored by Vanguard Sciences, PO Box 1031, Mesquite, TX 75150, USA. Contact Jerry at (214) 324 8741 or Ron at (214) 242 9346.*

*Those with a web browser can visit the KeelyNet web page in Australia at: <http://zeta.cs.adfa.oz.au/KeelyNet/>, or in Europe at: <http://www.ibg.uu.se/elektromagn/physics/KeelyNet/>)*

### POWER-LINE RADIATION STANDARDS UNDER FIRE BY EXPERTS

Richard Luben, a biochemist from the University of California, says that people have reason to be concerned regarding the effects of power-line radiation on their health.

Luben is on three panels set up by the US Government to evaluate scientific evidence surrounding electromagnetic field (EMF) exposure. One of these panels is the National Council on Radiation Protection. Luben has been investigating the effects of EMFs on biochemical processes in cells. He told a Brisbane meeting that EMFs do not penetrate cells, but they do seem to affect receptor molecules on the external surface of the cell, and the way signals move across the cell membrane. The changes that occur are similar to the effects on cells of known carcinogens.



Most American cities have an allowable field limit for human exposure of about 2 milligauss.

Australian standards allow public exposures of 1,000 milligauss, while workplaces can have up to 10,000 milligauss—50,000 times higher than the safety levels in the USA.

(Source: *New Scientist*, 18 November 1995)

## T-RAYS: THE NEW GENERATION X-RAYS

Move over X-rays—the next generation of imaging systems is about to arrive. Terahertz waves (or T-rays) are, in essence, very-high-frequency radio waves or very-low-frequency infrared waves, according to Martin C. Nuss, a physicist at AT&T Bell Laboratories in Holmdel, New Jersey, USA.

"These waves have the interesting property that they can easily pass through many dry, non-metallic materials like plastic, cardboard, wood and glass."

Although the radiation can penetrate only a few millimetres into some materials, the waves can pass through sufficiently thin samples, becoming slightly distorted in the process. By interpreting the changed wave-forms that emerge from the other side, researchers can figure out the chemical composition of the material in question.

In other words, T-rays are ideally suited to a range of applications, from scanning for bomb-making chemicals in airport luggage or reading the contents of letters inside sealed envelopes, to searching skin or tissue samples for cancer cells or finding manufacturing flaws in building materials.

One colleague at a Baltimore conference, when shown an image of the contents of a letter inside a sealed envelope, turned to Nuss and said, "There may be a new market out there for foil-lined envelopes."

(Source: *Science News*, 26 August 1995)

## BRAIN-COMPUTER LINK WITHIN A FEW DECADES?

A leading British futurologist, Professor Peter Cochrane, predicts that the human brain will be able to be linked directly into a computer within 50 years. He indicates that by 2020, scientists might have ways of linking silicon chips directly to the brain, possibly by growing nerve cells on the

microchip.

Well, it might be even earlier than Prof. Cochrane thinks, if researchers in Germany continue with their success.

Peter Fromherz, of the Max Planck Institute of Biochemistry, and his colleagues can now control a single neuron via a silicon chip connected to it. Granted, the neuron belongs to a leech—but this result is just another step towards investigating how neural networks grow and communicate.

Not to be outdone, Japanese researchers have developed a device which can literally read someone's mind. In a recent experiment at the University of Tottori, west of Osaka, a volunteer concentrated on one of five words that flashed on and off a computer monitor. Researchers connected the volunteer's head to several electrodes which monitored electrical activity in his brain using an encephalograph.

The encephalograph measured a type of brainwave called P300, which the brain produces when it focusses on an idea. P300 waves generally occur around 0.3 seconds after the brain has been stimulated. A computer then analysed the pattern of the brainwaves, comparing it with the patterns associated with words it had already learnt. It took about 25 seconds to guess correctly which word the volunteer was thinking about.

Sources: *The Australian*, 13 June 1995; *Scientific American*, November 1995; *New Scientist*, 16 December 1995)

## FINGERPRINT ID SCANNERS NOW AVAILABLE

A Sydney company has commercially developed electronic fingerprint scanning technology, so smart and so fast that it could soon replace plastic ID or credit cards with their passwords and PINs.

The technology allows you to identify yourself by pressing your finger against a device which takes a three-dimensional scan of the fingerprint and instantly matches it with a template stored in a computer.

The new system is considered so smart that US-based manufacturers of the previous generation of similar systems have abandoned their own products and become importers of the Australian system made by Fingerscan.

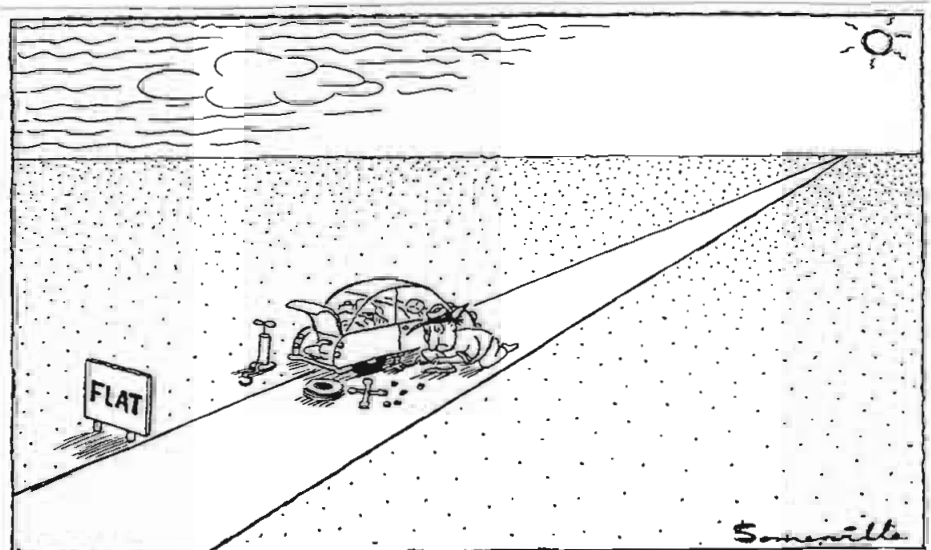
Fingerscan, based in both Sydney and Melbourne, is the brainchild of entrepreneur John Parselle. The company's products now sell in 30 countries.

(Sources: *The Sydney Morning Herald*, 4 December 1995; *The Courier Mail*, 5 December 1995)

## ELECTROMAGNETIC EARTHQUAKE DETECTION

A geoscientist from Stanford University is researching the existence of electromagnetic 'noise' which precedes the arrival of an earthquake.

For the second time, Antony Fraser-Smith has picked up subterranean electromagnetic waves in the ultra-low-frequency range, varying from 0.01 to 10 hertz.



The surges began about one month before the quake, and lasted for about a month afterwards.

The drawback is that these low-frequency waves travel for only about 15 kilometres through the ground, meaning that earthquake detectors need to be spaced closely together to be of any value.

The Earth's magnetic field also often experiences wild fluctuations for the 48 hours before an earthquake or volcanic eruption, but this is not really useful information for an earthquake early-warning system, either.

No one knows why a geological fault should produce electromagnetic waves, although there are varying theories.

Another researcher who has suggested that earthquakes have electromagnetic precursors is the Greek scientist, Panayiotis Varotsos, of the University of Athens, who has made the controversial claim that short-lived electric currents, lasting an hour at most, can herald a quake several weeks later. (See NEXUS, Global News, vol. 2 no. 27, Aug-Sept 1995.)

(Source: *New Scientist*, 23-30 December 1995)

## THE POTENTIAL OF VACUUM ENERGY

Free energy—the 'holy grail' of modern physics—could well be within reach, according to several scientists who claim there is indeed a loophole in the so-called Law of Conservation of Energy.

According to quantum theory, the 'vacuum' of space is not entirely empty, and the uncertainty principle implies that the universe is jam-packed with subatomic particles and anti-particles which constantly pop into and out of existence, during which time they give rise to "vacuum energy".

But cosmologists studying the origin of the universe have had to concede that the "Big Bang" theory violates the Law of Conservation of Energy as it cannot explain where all that heat and matter came from in the first place.

In 1957, scientists at the Philips Research Laboratories proved the existence of vacuum energy. They demonstrated that by bringing two highly polished metal plates together, a force magically appears between them, bringing them closer. They concluded that this so-called Casimir Force was created by the seething sea of the vacuum hammering on the plates.

In 1993, Daniel Cole of IBM in Vermont, and Harold Puthoff of the Institute for Advanced Studies in Austin, Texas, published calculations showing that, in principle, both heat and other energy forms could be generated "from nothing" using the Casimir Force between two conducting plates. The problem was that the amount of energy that could be extracted was extremely small.

Dr Puthoff is now exploring the idea of using huge numbers of microscopic plates collapsing in on each other, and then collecting the resulting power before the plates actually touch.

Meantime, Arthur C. Clarke, the noted science fiction writer, is developing his own vacuum-energy extraction device. While details are scant, apparently it is a free-energy conduit shaped like a metal drainpipe.

When asked to explain, the visionary said, "It's too big to talk about... The world as we know it, the fossil fuel era, is coming to an end. If we can make this breakthrough, it will be the story of the century. All hell will break loose."

(Source: *The Sunday Telegraph [UK]*, 31 December 1995)